

Notice of Allowability

Application No.

09/904,144

Examiner

Christopher R. Tate

Applicant(s)

BAHNSON, ALFRED BLALOCK

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Mar 17, 2004.
2. ☒ The allowed claim(s) is/are 1-4,8,9,11,12,16,17,23,26-30 and 38-41.
3. ☒ The drawings filed on 21 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

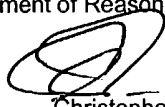
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Christopher R. Tate
Primary Examiner
Art Unit: 1654

Art Unit: 1654

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission, including the preliminary amendment, filed on March 17, 2004 has been entered.

Claims 1-9 11, 12, 16, 17, 23, 25-31, and 38 have been examined on the merits.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ansel Schwartz on May 17, 2004.

IN THE CLAIMS:

Claims 5-7, 25, and 31 have been canceled without prejudice.

In claim 1, at line 1, the phrase "a cell" has been omitted and replaced with --an animal cell--.

In claim 1, at lines 5-6, the phrase " having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

Art Unit: 1654

In claim 1, at line 6, the phrase "containing a viscosity enhancement medium" has been omitted and replaced with the phrase "--having a viscosity of about 100-5000 centipoises--".

In claim 2, at lines 1-2, the phrase "viscosity enhancement medium is" has been omitted and replaced with the phrase "--solution comprises--".

In claim 3, at line 2, the phrase "viscosity enhancement medium is" has been omitted and replaced with the phrase "--solution comprises--".

In claim 9, at line 1, the phrase "a cell" has been omitted and replaced with the phrase "--an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --".

In claim 9, at line 5, the phrase "--having a viscosity of about 100-5000 centipoises--" has been inserted after the term "solution".

In claim 11, at line 1, the phrase "a cell" has been omitted and replaced with the phrase "--an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --".

In claim 11, at lines 3-4, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 12, at line 1, the phrase "a cell" has been omitted and replaced with the phrase "--an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --".

In claim 17, at line 1, the phrase "a cell" has been omitted and replaced with the phrase "--an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --".

In claim 17, at lines 3-4, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 23, at line 1, the phrase "a cell" has been omitted and replaced with the phrase "--an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --".

Art Unit: 1654

In claim 23, at line 4, the term "human" has been deleted.

In claim 23, at lines 4-5, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 23, at line 6, the phrase "placing methyl cellulose in the solution" has been omitted and replaced with the phrase --introducing methyl cellulose in the solution so that the solution has a viscosity of about 100-5000 centipoises--.

In claim 26, at line 1, the phrase "a cell" has been omitted and replaced with the phrase --an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --.

In claim 26, at lines 4-5, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 26, at line 6, the phrase "using methyl cellulose in the solution for reducing or eliminating" has been omitted and replaced with the phrase --introducing methyl cellulose in the solution so that the solution has a viscosity of about 100-5000 centipoises to reduce or eliminate--.

In claim 27, at line 1, the phrase "a cell" has been omitted and replaced with the phrase --an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --.

In claim 27, at lines 3-4, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 27, at line 5, the phrase "using methyl cellulose in the solution for stopping" has been omitted and replaced with the phrase --introducing methyl cellulose in the solution so that the solution has a viscosity of about 100-5000 centipoises to stop--.

Art Unit: 1654

In claim 28, at line 1, the phrase "a cell" has been omitted and replaced with the phrase --an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --.

In claim 28, at lines 3-4, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 28, at lines 5-6, the phrase "having a viscosity of about 100-5000 centipoise in the solution for stopping or reducing" has been omitted and replaced with --in the solution so that the solution has viscosity of about 100-5000 centipoises to stop or reduce--.

In claim 29, at line 1, the phrase "a cell" has been omitted and replaced with the phrase --an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --.

In claim 29, at lines 3-4, the phrase "having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 29, at lines 5-6, the phrase "having a viscosity of about 100-5000 centipoise in the solution for reducing" has been omitted and replaced with --in the solution so that the solution has viscosity of about 100-5000 centipoises to reduce--.

In claim 30, at line 1, the phrase "a cell" has been omitted and replaced with the phrase --an animal cell having an average curvilinear velocity of less than 8 $\mu\text{m}/\text{min}$ --.

In claim 30, at lines 4-5, the phrase "having a viscosity of about 100-5000 centipoise in the solution for stopping" has been omitted and replaced with --in the solution so that the solution has viscosity of about 100-5000 centipoises to stop--.

In claim 30, at line 3, the phrase --having a viscosity of about 100-5000 centipoises-- has been inserted after the term "solution".

Art Unit: 1654

In claim 38, at line 6, the phrase "either a" has been omitted and replaced with the term --the--.

In claim 38, at lines 6-7, the phrase "having an average straight line velocity of between 0 and 10 $\mu\text{m}/\text{min}$ " has been deleted.

In claim 38, at lines 7-8, the phrase "containing a viscosity enhancement medium" has been omitted and replaced with the phrase --having a viscosity of about 100-5000 centipoises--.

The following new claims, claims 39-41, have been added:

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39. A method for analyzing an animal cell having an average curvilinear velocity of less than 8 m/min by suppressing movement of the cell caused by other than activity of the cell itself comprising the steps of:

placing the cell in a solution of between 0.1% and 0.2% by total volume of methyl cellulose for 2D analysis of motility; and

measuring the motility of the cell in the solution.

Art Unit: 1654

40. A method for analyzing an animal cell having an average curvilinear velocity of less than 8 m/min by suppressing movement of the cell caused by other than activity of the cell itself comprising the steps of:

placing the cell in a solution of between 0.1% and 0.2% by total volume of methyl cellulose onto cells in culture medium to provide a layer of methyl cellulose-containing medium for 2D analysis of motility; and

measuring the motility of the cell in the solution.

41. A method as described in any one of claims 1, 9, 11, 12, 17, 23, and 26-30, and 38-40, wherein the animal cell is a human cell.

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Reasons for Allowance

The prior art does not teach nor reasonably suggest the instantly claimed methods of analyzing animal cells having the claimed motility properties (including human cells) via the recited steps.

Art Unit: 1654

Claims 1-4, 8, 9, 11, 12, 16, 17, 23, 26-30, and 38-41 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Tate whose telephone number is (571) 272-0970. The examiner can normally be reached on Mon-Thur, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on (571) 272-0961. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher R. Tate
Primary Examiner
Art Unit 1654